

To the West of Spanish Cantabria

The Palaeolithic Settlement of Galicia

Edited by

A. de Lombera Hermida

R. Fábregas Valcarce

BAR International Series 2283

2011

TABLE OF CONTENTS

Foreword	iii
I. The State of the Art. Quaternary Studies on NW Iberia.	
Chapter 1: Palaeolithic Research in Galicia César Llana-Rodríguez	1
Chapter 2: The Upper Pleistocene Palaeoenvironmental Evolution of Galicia: a Geomorphological Approach. Augusto Pérez-Alberti	11
Chapter 3: Upper Pleistocene Cave Bears from Galicia (NW of the Iberian Peninsula): a Palaeoenvironmental Approach. Aurora Grandal-d'Anglade, Marta Pérez-Rama, Ana García- Vázquez, Gloria González-Fortes, Daniel Fernández-Mosquera	25
Chapter 4: Small Vertebrates of Galicia (NW Spain) during the Upper Pleistocene and Holocene. Jose Miguel Rey-Salgado	39
Chapter 5: Environment and Animal Resources in the Upper Pleistocene and Early Holocene of Northwest Iberia Carlos Fernández-Rodríguez	43
Chapter 6: The First Settlement of the Iberian Peninsula in the European Context Xosé Pedro Rodríguez-Álvarez	53
II. Filling in the Gap. New Discoveries in the Eastern Area of NW Iberia.	
Chapter 7: A Research Program on the Palaeolithic Settlement of Inland Galicia (NW Spain) Ramón Fábregas-Valcarce	73
Chapter 8: Geomorphology and Relative Chronology of the Human Occupations during the Pleistocene at the Basin of Monforte de Lemos (Lugo, Galicia) Alicia Ameijenda-Iglesias	81
Chapter 9: The Palaeolithic Settlement of the Monforte Basin (Lugo, Galicia). Arturo de Lombera-Hermida, Xosé Pedro Rodríguez-Álvarez, Ramón Fábregas-Valcarce, Talía Lazuén-Fernández	93
Chapter 10: Caves and People. Archaeological Research at the Eastern Margins of NW Iberia. Arturo de Lombera-Hermida	111

Chapter 11:	
The Upper Pleistocene Site of Cova Eirós (Triacastela, Lugo, Galicia)	123
Xose Pedro Rodríguez-Álvarez, Arturo de Lombera-Hermida, Ramón Fábregas-Valcarce, Talía Lazuén-Fernández	
Chapter 12:	
Archaeological Excavations in the Becerreá Sites (Eastern Lugo): Valdavara Cave and Valdavara 3	133
Manuel Vaquero-Rodríguez, Susana Alonso-Fernández, Alicia Ameijenda-Iglesias.	

CHAPTER 12:

ARCHAEOLOGICAL EXCAVATIONS IN THE BECERREÁ SITES (EASTERN LUGO): VALDAVARA CAVE AND VALDAVARA 3

Manuel Vaquero-Rodríguez

*IPHES, Institut Català de Paleoecologia Humana i Evolució Social,
Universitat Rovira i Virgili (URV), Campus Catalunya,
Avinguda de Catalunya, 35, 43002 Tarragona, Spain.
Email: manuel.vaquero@urv.net*

Susana Alonso-Fernández

*IPHES, Institut Català de Paleoecologia Humana i Evolució Social,
Universitat Rovira i Virgili (URV), Campus Catalunya,
Avinguda de Catalunya, 35, 43002 Tarragona, Spain.
Email: esafcus@gmail.com*

Alicia Ameijenda-Iglesias

*Grupo de Estudos para a Prehistoria do Noroeste (GEPN). Dpto de Historia I.
Universidade de Santiago de Compostela.
15782 Santiago de Compostela
Email: aameijenda.iglesias@gmail.com*

Abstract: *The goal of this paper is to make known the first results of the excavations in the archaeological sites located in the Becerreá council (Eastern Lugo). The research project carried out since 2007 has included the excavation of two sites: Valdavara Cave and Valdavara 3. Four field seasons have been so far carried out in Valdavara Cave, in which two archaeological locations were documented in the same karstic system (Valdavara 1 and Valdavara 2). On the one side, the test pits initiated in Valdavara 1 allowed identifying two stratigraphic units: an upper set corresponding to the Recent Prehistory and a lower set that yielded Late Upper Paleolithic assemblages. On the other side, an assemblage of human remains from the Bronze Age was found in Valdavara 2. Field works in Valdavara 3 started in 2009 and have yielded a rich paleontological assemblage associated with some scarce lithic artifacts. Although radiometric dating is not yet available, a Middle Pleistocene age cannot be discarded for this site.*

Keywords: *Becerreá, Upper Paleolithic, Recent Prehistory, Valdavara Cave, Valdavara 3.*

Resumen: *El objetivo de este artículo es dar a conocer los primeros resultados de las excavaciones en los yacimientos arqueológicos situados en la localidad de Becerreá (Este de la provincia de Lugo). El proyecto de investigación que se viene realizando desde 2007 ha incluido la excavación de dos yacimientos: la Cueva de Valdavara y Valdavara 3. Hasta el momento se han llevado a cabo cuatro campañas de excavación en la Cueva de Valdavara, durante las cuales se han documentado dos localizaciones arqueológicas en el marco del mismo sistema cárstico (Valdavara 1 y Valdavara 2). Por una parte, los sondeos iniciados en Valdavara 1 ha permitido identificar dos conjuntos estratigráficos: un conjunto superior correspondiente a la Prehistoria Reciente y un conjunto inferior que ha proporcionado restos del Paleolítico Superior final. Por otra parte, en Valdavara 2 se encontró una serie de restos humanos de la Edad del Bronce. Los trabajos arqueológicos en Valdavara 3 se iniciaron en 2009 y han permitido documentar un rico conjunto paleontológico asociado a unos pocos artefactos líticos. Aunque las dataciones radiométricas aún no están disponibles, no puede descartarse una cronología del Pleistoceno Medio para este conjunto.*

Palabras clave: *Becerreá, Paleolítico Superior, Prehistoria Reciente, Cueva de Valdavara, Valdavara 3.*

Introduction

The aim of this paper is to present the preliminary results from the archaeological excavations carried out in two sites located in the Becerreá village, at the Eastern part of the Lugo province (Galicia, Spain). Archaeological works started in 2007, in the framework of the research project *Human occupations during the Pleistocene in the middle Miño basin*, which is developed by the Santiago de

Compostela and Rovira i Virgili universities (Fábregas *et al.*, 2007 and 2008). Two different sites have been so far excavated in Becerreá: Valdavara Cave and Valdavara 3.

From a geological point of view, these sites are located in the Mondoñedo Mantle, which is one of the unities forming the Western Asturias-Leon Zone of the Iberian Massif. This zone is constituted by Lower Paleozoic formations with a dominance of slates and sandy rocks, although the presence

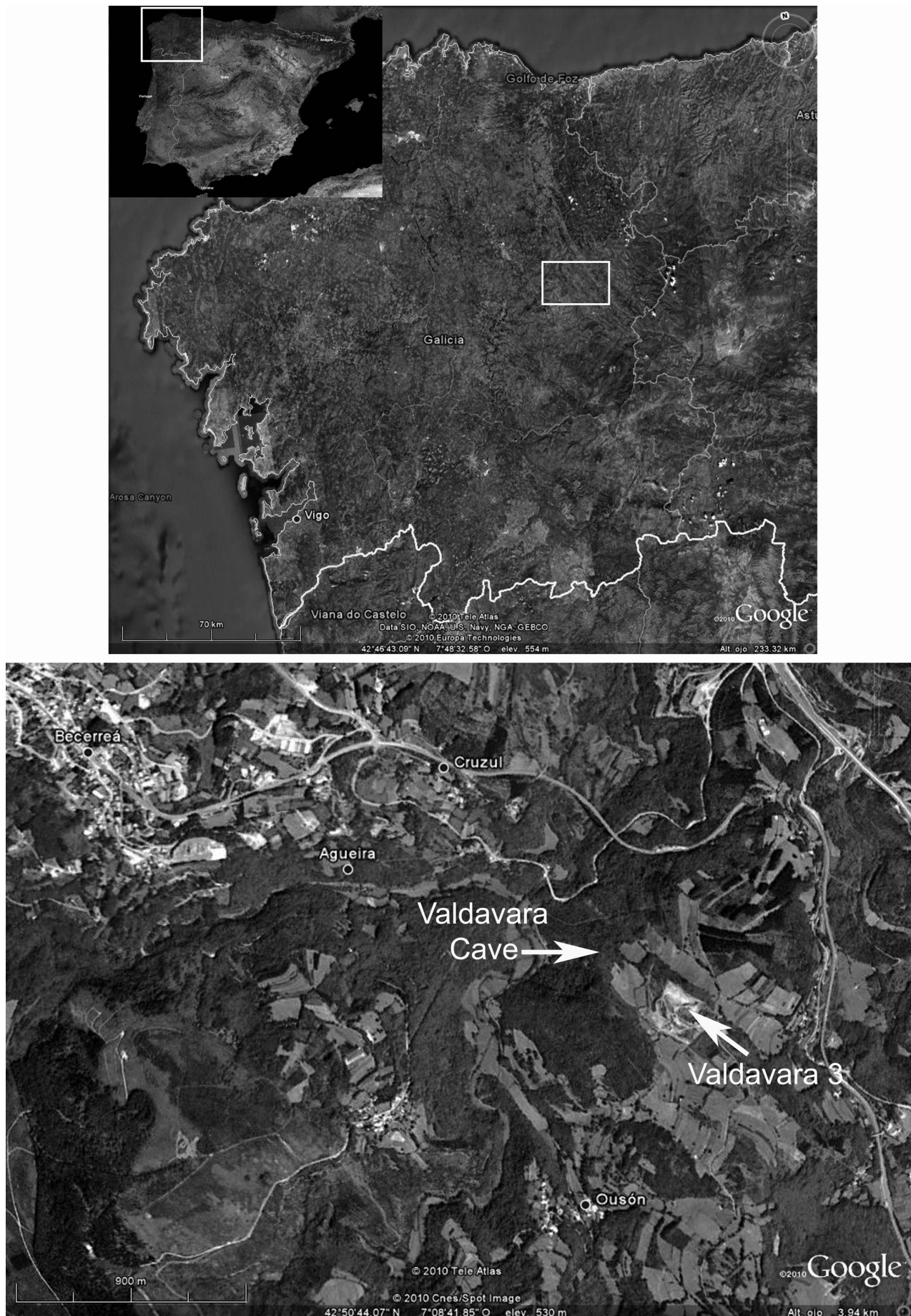


Figure 1. Map showing the location of Valdavara Cave and Valdavara 3.

of limestone formations should be stressed. Both Valdavara Cave and Valdavara 3 are opened in the Lower-Middle Cambrian limestone (also known as Vegadeo Limestone) outcropping along a wide stretch of NNW-SSE direction. This formation is singular due to its lithology, composed of dolomite and limestone. The fossiliferous content of the underlying and overlying layers suggests that the Vegadeo Limestone correspond to the Lower Cambrian, although the uppermost levels could reach the Middle Cambrian (Vera, 2004).

This formation is intensely karstified and many caves have been reported in the surroundings of Becerreá. Some of these caves, like Furco Cave and La Venta Cave, already yielded some isolated archaeological and paleontological remains (Fernández Rodríguez, 1993; Grandal, 1991). However, this is the first research project aimed at establishing the archaeological relevance of the Becerreá caves. The excavations in Valdavara Cave started in 2007 and four field seasons have been so far carried out. Valdavara 3 was discovered in 2009 and we have only made one excavation campaign. Archaeological works at these sites are still in progress and the results that we will present next should be therefore considered as preliminary.

Valdavara Cave

Valdavara Cave is located at the right margin of the Narón River, at 600 m a.s.l. and 120 m above the current river bed (Figure 1). The Narón River, also called in this area as Cruzul, is one of the tributaries of the Navia River, which flows into the Cantabrian Sea 85 km north of the site. The Navia valley is therefore a natural passage between the Cantabrian region and the Miño basin. Valdavara Cave is a small cavity facing northeast. A 1.2 m wide and 1.6 m high entrance gives access to a small chamber that is 5 m long and 3 m wide. At the rear of this chamber, two short galleries bifurcate.

The information about the presence of archaeological remains in Valdavara Cave was provided by some Becerreá inhabitants. At the beginning of the 60s, a group of local amateurs made a small 120 cm deep pit near to the cave entrance. They recovered an archaeological assemblage formed by faunal remains, pottery fragments, and quartz and flint artifacts. There were also some human bones that suggested the use of the cave as a burial place. Although no stratigraphic sequence was recorded, this assemblage indicated that at least two different cultural periods could be represented in the deposit. On the one hand, ceramics suggested occupations during the Recent Prehistory. On the other hand, some flint artifacts -particularly some burins- indicated that the cave was also occupied in the Late Upper Paleolithic. However, we did not know whether these remains corresponded to different stratigraphic units or they came from a disturbed deposit. The main goal of first excavation season was therefore to document the stratigraphical sequence of the site.

During the preliminary visits to the site, we observed that, at some meters below the cave, there was a small fissure that seemed to be a second entrance to the karstic system. Some bone and lithic remains in the surface in front of this fissure suggested that it could correspond to another archaeological location. In order to distinguish these different locations, we have called Valdavara 1 to the cave and Valdavara 2 to the fissure (Figure 2). As in Valdavara 1, works in Valdavara 2 began in 2007. In addition, we started in 2008 the excavations in the slope between Valdavara 1 and 2 (Valdavara 1-2). As we will see below, each of these locations (Valdavara 1, 2, and 1-2) has revealed a different archaeological sequence. The information on Valdavara 1 and 2 that we will present next is largely based on the results of the 2007 excavation, which have been exposed in more detail in a previous paper (Vaquero *et al.*, 2009).

Valdavara 1

Two 2 x 1 m test pits have been so far excavated inside the cave. The first one was started in 2007 near to the entrance of the cave and reached the bottom of the sequence. The excavation of the second one, located in the rear of the main chamber, began in 2009 and is still in progress. The stratigraphic descriptions that we will present below are mainly based on the data obtained from the former (Figure 3). The first pit was made close to the hole of the 60s, since this provided a preliminary stratigraphical guide. This hole was partially filled with removed sediments that contained many archaeological remains similar to those from the 60s assemblage: potsherds, lithic artifacts of Paleolithic appearance, faunal remains, and more human bones. Two stratigraphic assemblages were clearly visible in the sections of the hole. The upper one was formed by dark silts, and the lower one by reddish silts. The data from the test pit corroborated these preliminary observations, allowing to document a 90 cm thick stratigraphical sequence formed by six units:

- Level 1 (2-15 cm) is formed by brown-gray silts with rounded and sub-rounded gravels. It is a disturbed surface layer that contained some archaeological remains of post-Paleolithic age, including some sub-actual items.
- Level 2 (7-20 cm) is composed by gravels in a dark brown silty-clayey matrix. It was locally bioturbated by sub-actual burrowing. Radiocarbon dating (4410 ± 40 BP) and archaeological remains indicate a Holocene age (Figure 4).
- Level 3 (5-21 cm) is formed by a light brown silty-clayey sediment with sub-rounded gravels. Although radiometric dating is not available for this level, the archaeological assemblage is similar to that from level 2, suggesting also a Holocene chronology.

These three units constitute the upper assemblage, which shows an abrupt and clear-cut boundary with the lower assemblage. This assemblage is also composed by three units:

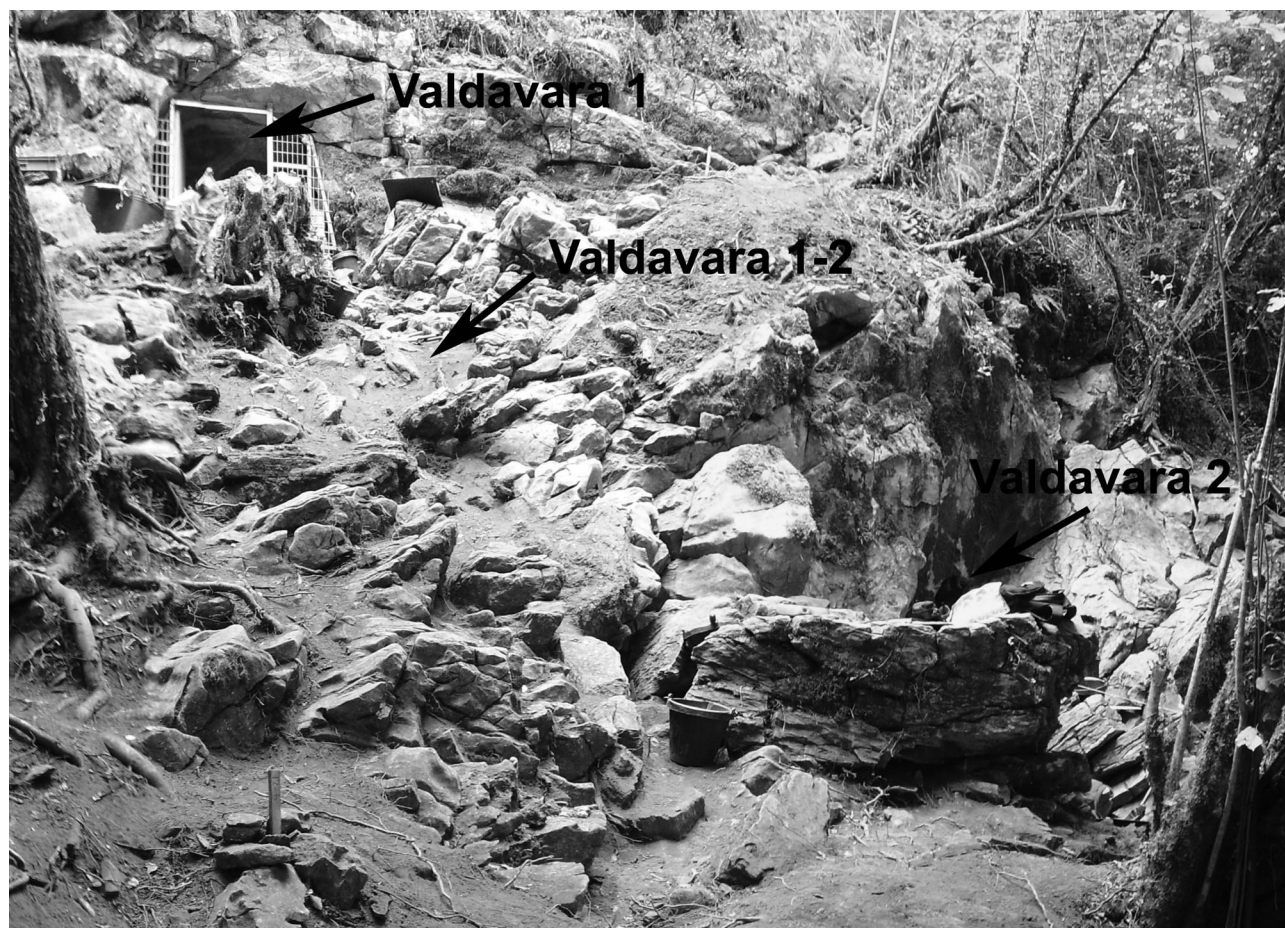


Figure 2. Photograph of Valdavara Cave showing the different loci distinguished during the excavation.

- Levels 4 and 5 (25-35 cm) show similar characteristics and are formed by orange clays with angular gravels. Both the radiocarbon dating ($13,770 \pm 70$ and $14,630 \pm 70$ BP) and the archaeological remains indicate a Late Pleistocene age (Figure 4).
- Level 6 (25-35 cm) is composed by rounded gravels in an orange clayey matrix. Archaeological remains are scarce and undiagnostic, but the radiocarbon date available for this layer ($15,120 \pm 70$ BP) suggests that it also corresponds to the Late Pleistocene.

This clear stratigraphic boundary has been corroborated by the archaeological remains, since these assemblages yielded very different assemblages. Potsherds, quartz artifacts and human remains characterize the upper assemblage. On the contrary, pottery is absent in the lower assemblage, which shows a lithic assemblage mostly made on flint. The ^{14}C AMS dates so far available for Valdavara Cave can be seen in figure 4. Dating from level 2 has been made on a human phalanx, while the three dates from level 4 correspond to macro-mammal bones. It should be stressed that the three dates from the lower assemblage are in stratigraphic order. These dates corroborate the great temporal gap between the two stratigraphical assemblages of Valdavara 1.

The Recent Prehistory levels.

Most potsherds from levels 2 and 3 are undiagnostic, although it seems that globular forms are dominant. The characteristics of the lips and body sherds indicate that they correspond to middle-sized vessels with matt smoothed outer surfaces and black inner surfaces. Decoration is scarce and incised motifs are dominant. It is worth noting a vessel showing groups of horizontal parallel lines separated by smoothed bands. Although few remains are chronologically diagnostic, some elements, like the incised decoration with horizontal parallel bands and a spherical vessel with red burnished slip, have been documented in megalithic contexts of the Late Neolithic (Fábregas *et al.*, 2005). However, other traits, like the flat bases that could correspond to ovoid vessels, seem to fit better in a Bronze Age context. An adscription to the Early Bronze Age seems the most likely. The presence of remains from different cultural periods in the upper stratigraphic assemblage can not be therefore discarded.

Lithic artifacts are scarce and most are typologically undiagnostic. Quartz is the dominant raw material (about 70% of lithics from levels 2 and 3), which indicates a clear difference with respect to the provisioning strategies of the Pleistocene layers. Quartz is a local raw material that can

be easily found in the immediate surroundings of the cave. A broken polished axe was also found in the disturbed infill of a burrow.

Concerning the faunal remains, small and very small animals are dominant in level 2, although a medium-sized animal has been also identified. Ovicaprid remains are dominant, but it has not been possible to discern whether they correspond to sheep or goats. We have also recovered some remains of small carnivores. Domestic taxa are absent from level 3, in which we have only identified two Cervidae remains and a metacarpus of *Vulpes vulpes*. Micro-vertebrate bones are particularly abundant and

they show a great diversity of species (31 different taxa), including micro-mammals, amphibians and reptiles. The presence of *Clethrionomys glareolus* (bank vole), *Micromys minutus* (harvest mouse), and *Crocidura russula* (greater white-toothed shrew) in level 2 agrees with other Holocene assemblages from Northern Iberian Peninsula (López García *et al.*, 2008). In addition, remains of the golden-striped salamander (*Chioglossa lusitanica*) have been identified for the first time in the fossil record (Blain *et al.*, 2009). In general, micro-vertebrates suggest a humid and forested environment. Some *Dentalium* shells have been also found in these upper levels.

The upper assemblage has yielded a collection of human remains that suggest the use of the cave for funerary purposes during the Late Neolithic – Calcolithic period. Only the remains found during the 2007 excavation season have been so far studied. This assemblage is exclusively formed by small anatomical parts (teeth and phalanxes): 1 incisive, 1 canine, 1 premolar germ, 1 premolar, 1 first deciduous premolar, 1 proximal phalanx, and 3 intermediate phalanxes. Three different individuals can be at least recognized, two children (6-7 and 9 years old respectively) and one adult individual.

The Late Upper Paleolithic levels

Most data concerning the Upper Paleolithic levels also correspond to the 2007 assemblage. The remains found in the rest of the excavation seasons have not been yet studied in depth. Flint is the dominant raw material in the lithic assemblage (more than 70%). Although the location of the flint sources is still unknown, it seems clear that flint is not a local material. Blade production is well attested in level 4 and burins are clearly the best represented tool class. In addition, we have documented a broad variability of burin types. Some bone tools have been also found.

As in the upper levels, small animals are also dominant in level 4, although the number of remains identified at the taxonomical and anatomical levels is scarce: one wolf phalanx and one ulna of chamois. There is also a fragment corresponding to a medium-sized mammal. Most remains are darkened due to manganese oxides, which suggest a

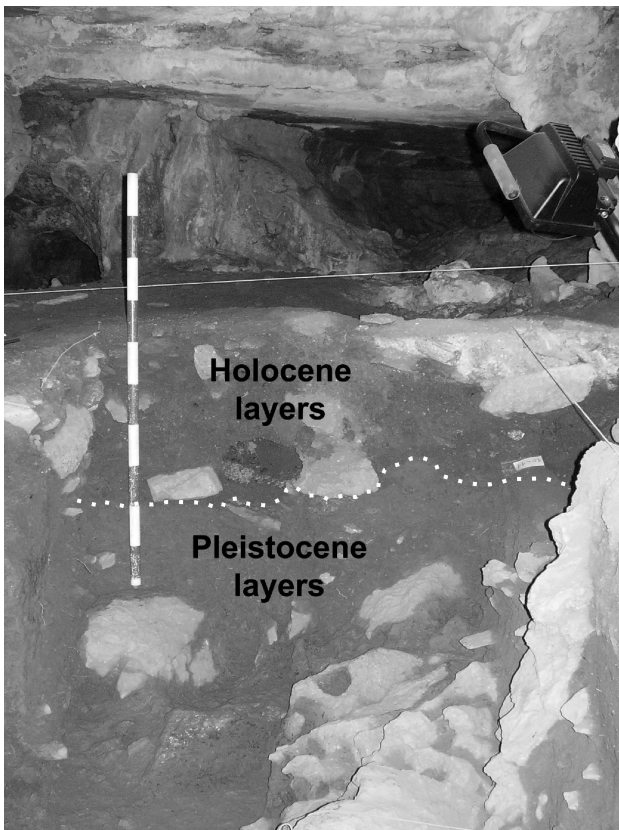


Figure 3. Stratigraphic section of Valdavara 1 indicating the location of the Holocene and Pleistocene layers.

Loc.	Level	Material	Lab.ref.	Radiocarbon years	Cal. years BP	Cal. years BC
Val 1	2	Human bone	Beta-235727	4410 ± 40	5160-4840	3210-2890
Val 1	4	Bone	Beta-235728	13,770 ± 70	17,080-16,880	15,130-14,930
Val 1	4	Bone	Beta-235726	14,630 ± 70	17,890-17,730	15,940-15,780
Val 1	6	Bone	Beta-257849	15,120 ± 70	18,700-17,820	16,750-15,870
Val 1-2	C	Bone	Beta-257850	8920 ± 50	10270-9830	8320-7880
Val 1-2	C	Bone	Beta-259199	8890 ± 60	10250-9770	8300-7820
Val 2	3	Human bone	Beta-235729	3270 ± 40	3600-3400	1650-1450
Val 2	3	Human bone	Beta-235730	3250 ± 40	3600-3360	1650-1410

Figure 4. Radiocarbon dates from Valdavara Cave. The 2σ calibration (p= 95%) has been made using the CalPal-2007-Hulu calibration curve (Weninger and Jöris, 2004).

humid and flooded depositional environment. As in the upper assemblage, micro-vertebrate bones are abundant. The presence of *Chionomys nivalis* (snow vole), *Microtus oeconomus* (tundra vole), and *Sorex minutus* (pygmy shrew) defines a micro-mammal association typical from Northern Iberia during the second half of the Upper Pleistocene. These species indicate that climate was colder than in level 2, but, like in level 2, humid conditions were dominant. We also recovered in levels 4 and 5 seven *Dentalium* shells (Figure 5). However, the shells from these levels show a marked difference with those found in the Holocene layers. The specimens from levels 2 and 3 correspond to the species *Dentalium vulgare*, characterized by a smooth shell without ridges. On the contrary, all the remains found in levels 4 and 5 can be attributed to the species *Dentalium novemcostatum*, whose shell shows a series of well-marked longitudinal ridges. The presence of *Dentalium* remains in archaeological sites is normally associated with the use of the shells for personal adornment. The *Dentalium* shells of Valdavara, together with the stone pendant from Férvedes II (Ramil Soneira and Vázquez Varela, 1983) and the pierced fox tooth recently found in Eirós Cave (Fábregas *et al.*, 2010), are the only Paleolithic adornment objects so far recovered in Galician sites.

Valdavara 1-2

The excavation of the exterior talus between Valdavara 1 and 2 started in 2008 and is still in progress. The stratigraphic sequence is different from that documented inside the cave and includes an Early Holocene level. Three main layers have been distinguished in this sequence:

- Level B (15-90 cm) is a blackish silty layer with many small limestone blocks. It is intensely bioturbated by roots. The archaeological assemblage is characterized by the presence of prehistoric ceramics mixed with some sub-actual remains.
- Level C (9-33 cm) is formed by reddish brown silts and clays. Limestone blocks are common and tend to be larger than in the previous level. This level yielded an archaeological assemblage that, according to dating and the characteristics of the lithics, can be attributed to the Macrolithic Mesolithic.
- Level D (17-56 cm) is composed of orange silty-clayey sediment with large limestone boulders. The archaeological content will not be presented here because the excavation of this level is not finished yet.

We have for level C two radiocarbon dates (Figure 4) that place this level around 10,000 cal BP (or 8000 cal BC). These two dates are practically identical, although they come from different horizons of the layer. This dating is in agreement with the dates obtained for Macrolithic assemblages in the rest of the Iberian Peninsula. The Macrolithic Mesolithic, also known as Mesolithic of denticulates and notches, is currently one of the best defined Mesolithic facies in the Iberian Peninsula. It is particularly well documented in the Mediterranean basin and the

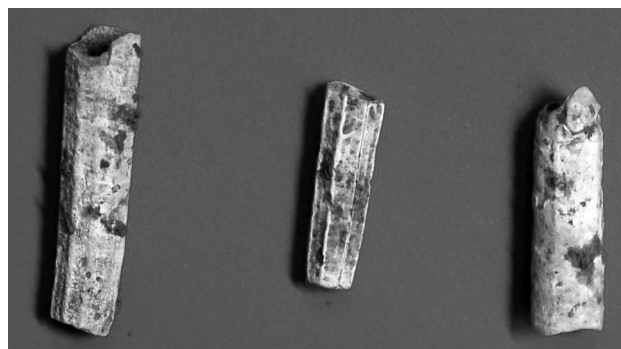


Figure 5. *Dentalium* shells found in the Late Upper Paleolithic layers of Valdavara 1.

Cantabrian region, where the Asturian may be considered as an expression of this macrolithic phenomenon. However, macrolithic assemblages are relatively scarce in the interior and western regions of Iberia.

We have found some refits proving that some quartz reduction sequence were carried out into the site. The distribution of those refits suggests that the spatial relations between the artifacts have not been highly disturbed, at least in the uppermost horizon of the layer. The faunal assemblage is small and only eight remains have been identified at the anatomical and taxonomical level. The species identified are roe deer, red deer and chamois (J. Rosell, per. com.).

The lithic assemblage is formed by 175 artifacts. Quartz is clearly the dominant raw material and represents more than 70% of the total assemblage. As we have seen previously, quartz is a strictly local material, since it is abundant in the Paleozoic formations surrounding the site, both in primary and secondary locations. 26% of the artifacts are made on flint, which is a non local material. This pattern is clearly different to that documented in the Magdalenian layers excavated inside the cave, in which flint is markedly dominant. However, quartz and flint show very different technical patterns in the Mesolithic, both from the technological and typological points of view, and in fact they may be considered as two different assemblages.

The quartz assemblage is characterized by expedient reduction strategies directed to the production of flakes. Large cores showing short series of detachments are clearly dominant. Most of these cores exhibit unipolar reduction methods, systematically adapted to the morphology of the nodule. Natural cortical surfaces are usually used as striking platforms, although there are also some platforms prepared by large removals. The few quartz cores showing an advanced reduction stage are characterized by a more or less dischoidal morphology. Retouched artifacts are scarce and show atypical and irregular retouch, although they tend to exhibit denticulate forms. The flint assemblage shows different characteristics. The two cores identified in this assemblage show reduction methods directed to the

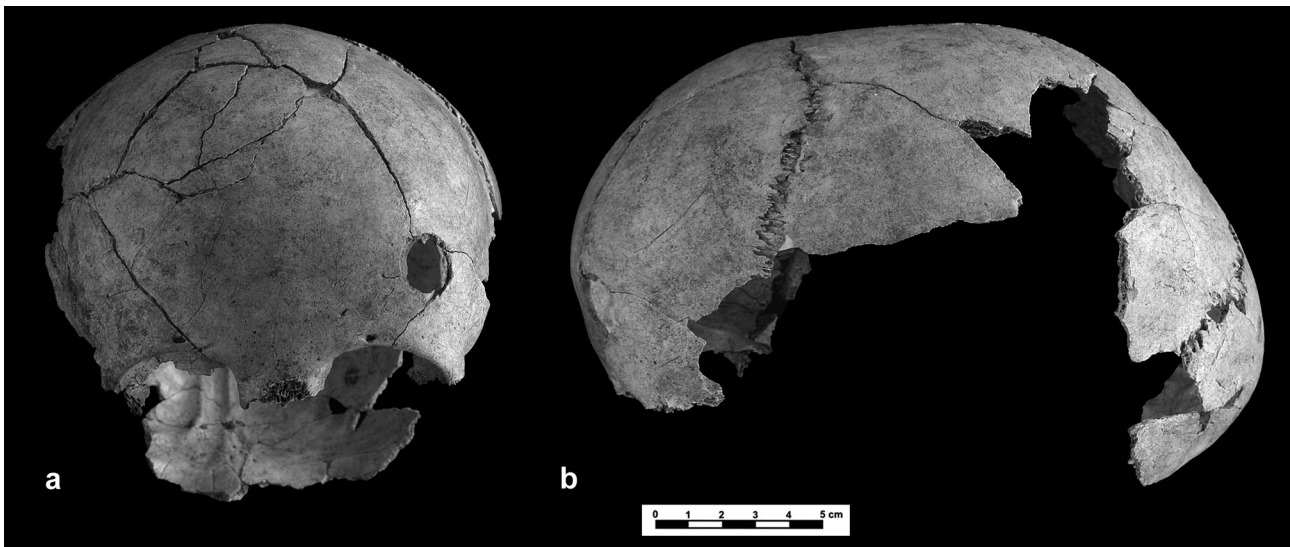


Figure 6. Anterior (a) and left lateral (b) views of the child neurocranium found in Valdavara 2. Photograph by Gerard Campeny.

production of elongated blanks, although the blade index is fairly low. Retouched artifacts are characterized by Upper Paleolithic types, like burins and bladelets with marginal retouch. Finally, we should also bring especial attention to the quartzite artifacts, introduced in form of large selected blanks.

Valdavara 2

In Valdavara 2, we have excavated a 2 x 2 m pit in front of the fissure opened in the rocky wall. The stratigraphic sequence is composed of three main units. Level 1 was a superficial bioturbated layer that yielded some bones and quartz artifacts. Below this level, a horizon of large limestone boulders appeared. In the gaps between the blocks, two main sedimentary units were recognized: level 2, formed by red silts, and level 3, formed by gravels in a red silty matrix. Only faunal remains were found in level 2, while level 3 yielded an interesting accumulation of human remains as well as more mammal bones. Unlike Valdavara 1, Valdavara 2 is characterized by the scarcity of material culture items. The faunal assemblages from level 2 and 3 do not exhibit evidence of human activity and the human bones from level 3 were not associated with any potsherd or lithic artifact.

Few faunal remains were recovered in level 2, and only five have been identified: one ovicaprid remain and four rabbit bones. The faunal assemblage from level 3 is larger, and 49 remains have been identified at the anatomical and taxonomical levels. Goat is the dominant species, followed by rabbit, but we have also identified some remains of *Bos* sp., red deer, and small carnivores. Among goat remains, limb bones are the best represented anatomical parts. Several bones show fractures and gnawing marks. The characteristics of these marks indicate that they were produced by a medium-sized carnivore. More than a half of the remains show manganese oxides, suggesting a

humid depositional environment. These data suggest that the formation of the faunal assemblage was not related to human activity.

During the 2007 excavation, 55 human fossils were recovered in level 3. They correspond to two children and indicate an intentional burial, although the bones were not in anatomical connection. The first individual was identified during the excavation by the recovery of an almost complete neurocranium (Figure 6) and other bones scattered around it. According to the ossification of the tympanic bone, he died when 2.5-3 years old. Four isolated deciduous teeth can be also attributed to this individual. The second individual died when 6-9 months old and was identified by a left temporal bone in which the anterior and posterior tubercles of the tympanic bone are not fused. Moreover, two isolated teeth can also correspond to this individual. During the 2008 and 2009 excavation seasons, remains of a third child have been recovered, but they are still under study. At first, it was difficult to establish the chronology of this assemblage, since no vestige of material culture was associated with the human bones. Only the direct dating of two human remains allowed to resolve this question. The dates (3270 ± 40 and 3250 ± 40 BP) suggest a Late Bronze Age context for the burials (Figure 4).

Valdavara 3

Valdavara 3 is located at only 400 m from Valdavara Cave, in a stone quarry located at the top of the same ridge (672 m a.s.l.). The site was discovered in July of 2009, when a blast carried out during the quarry works exposed the 16 m thick infill of a large vertical shaft (Figure 7). As a consequence of the blast, part of the deposit fell down and accumulated at the base of the section. During our first visit to the site, we realized that these removed sediments contained a large amount of faunal remains. The first archaeological intervention was carried out in July 2009 and consisted



Figure 7. Section remaining after the quarry works in Valdavara 3. The sedimentary infilling of the cavity can be seen in the middle of the image.

in collecting these removed remains in order to make a preliminary evaluation about the scientific interest of the site. In particular, we wanted to find out if there was some evidence of human presence in these disturbed sediments, as well as to have some clues about the site chronology. The data from these removed materials and the risk of destruction of the site by the quarry exploitation compelled to carry out a rescue excavation, which started in June 2010. The results from this first excavation will not be included in this paper. We will present a synthesis of the results extracted from the removed materials collected in 2009.

The bulk of the 2009 assemblage is formed by faunal remains. These remains correspond to a broad spectrum of species, including both herbivores (horse, rhinoceros, *Bos sp.*) and carnivores (hyena, bear, lion). There is no clear evidence of human activity on these bones and it seems that most of the assemblage was formed by non-human agents. Moreover, some remains show carnivore toothmarks. There is also a great diversity of anatomical parts, and both cranial and post-cranial elements are represented. Although Valdavara 3 seems to be basically a paleontological site, human presence has been attested by some lithic artifacts. The lithic assemblage is composed

of large and medium-sized flakes on quartz, quartzite and sandstone (Figure 8). Such small assemblage is not diagnostic from the cultural or technological point of view, but it is enough to corroborate that humans made some visits to the site. Since radiometric dates are not still available, the first chronological hypothesis should be based on the characteristics of the macro and micro-mammal assemblages. Although we should bear in mind that these remains come from disturbed sediments, the taxonomical data indicates that a Late Middle Pleistocene or Early Upper Pleistocene age is the most likely.

Conclusions

Excavations in Valdavara Cave and Valdavara 3 are providing information about different cultural periods of the North-western Iberian Prehistory: Bronze Age, Late Neolithic – Chalcolithic, Mesolithic, and Late Upper Paleolithic. However, these results are still preliminary and there are important questions that must be resolved, like the chronology of Valdavara 3, in order to establish the temporal range of the Becerreá sites. Meanwhile, the most significant contribution of these sites concerns the funerary behaviour of Recent Prehistory populations and

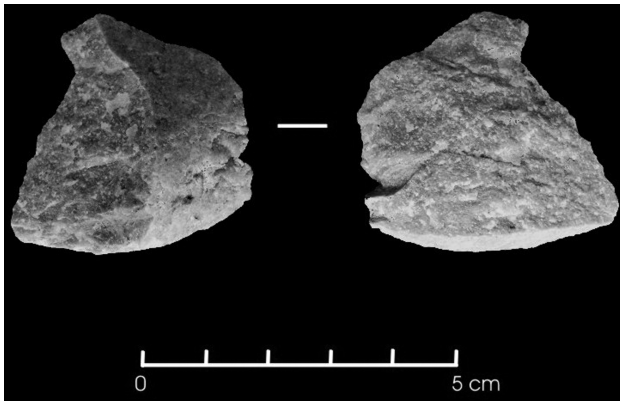


Figure 8. Quartzite flake recovered in the removed sediments from Valdavara 3.

the approach to cultural periods very little-known so far in North-western Iberia, like the Macrolithic Mesolithic and the Early-Middle Magdalenian. Together with other recently published sites, Valdavara Cave and Valdavara 3 show the potentiality of the Eastern Ranges of Galicia for carrying out archaeological research projects. Unlike most of Galicia, this area is characterized by a good preservation of organic materials, which allows a better approach to human subsistence strategies and the availability of radiometric dates that are less reliable in other geological contexts.

The use of caves for funerary purposes during the Recent Prehistory is not well documented in Galicia. This is partly due to the scarcity of karstic formations in this region. Besides Valdavara, other example is Pala da Vella Cave (Fernández Rodríguez and Villar Quinteiro, 2003), with a radiometric dating on a human vertebra ($4,500 \pm 35$ BP) similar to that obtained from level 2 of Valdavara 1. Although both Pala da Vella and Valdavara share many characteristics, their respective potsherd assemblages are different, especially concerning decorative patterns. Only small human bones, like teeth and phalanges, have been recovered in the upper assemblage of Valdavara 1. These are the anatomical parts that tend to rest on place when previously buried remains are removed to a secondary location. This transport of human skeletons has been well attested in other Neolithic and Bronze Age sites of the Iberian Peninsula (Bueno *et al.*, 2005; Cámara Serrano, 2001; Cáceres *et al.*, 2007). It seems therefore that the human remains from Valdavara 1 may correspond to primary burials from which large elements were removed and transported to another place.

Concerning Valdavara 2, the most outstanding feature is the age pattern of the funerary accumulation, since only child remains have been so far recovered. It seems that Valdavara 2 may show a pattern of anatomical representation opposite to that documented in Valdavara 1. There are cranial parts, long bones, and limbs, but small parts (hand and foot bones, vertebrae) are underrepresented. This accumulation could

therefore correspond to a secondary deposit formed by bones transported from the primary burial. However, we should wait for the study of the remains recovered after 2007 in order to test this hypothesis.

Level C of Valdavara 1-2 represents the first Macrolithic assemblage identified in Galicia. It corroborates the wide geographical distribution of the Macrolithic Mesolithic at the scale of the Iberian Peninsula. Together with recently published sites, like Barca do Xerez de Baixo (Araújo *et al.*, 2009), Prazo (Monteiro-Rodrigues and Angelucci, 2004), Conejar Cave and Parque Darwin, confirms that this Mesolithic techno-complex is well represented in the western and interior regions of the Iberian Peninsula. According to the dating of these sites, the chronology of the Macrolithic phenomenon in these regions is coincident with that obtained in the Mediterranean and Cantabrian regions. From a technological perspective, the dominant use of local raw materials and expedient reduction methods appear as essential patterns in the definition of this techno-complex, marking a clear rupture with the Upper Paleolithic assemblages of the Late Pleistocene. The presence of an “Upper Paleolithic” component in the Mesolithic assemblage of Valdavara Cave, as well as in other Mesolithic sites, remains an open question. Although the use of more complex technologies on non local materials can not be discarded during the Macrolithic Mesolithic, taphonomical processes should be seriously taken into account in order to explain the apparent coexistence of these different behaviours.

The lower assemblage of Valdavara 1 is especially interesting due to the scarcity of reliable Upper Paleolithic occurrences in Galicia. This scarcity is particularly striking taking into account the proximity to the Cantabrian region, which shows one of the largest concentrations of Upper Paleolithic sites in all the Iberian Peninsula. Taking aside the A Valiña Cave, whose Upper Paleolithic attribution is dubious, only a few sites located in the North of the Lugo province have been assigned to the Upper Paleolithic using typological arguments: Dos Niñas, Férvedes II, Pena Grande and Prado do Inferno (López Cordeiro, 2003; Ramil, 1997; Villar Quinteiro, 1997). According to Villar Quinteiro (1997), the typological characteristics of Férvedes II and Dos Niñas place these sites in the Lower Magdalenian. They could be therefore chronologically close to the Pleistocene levels of Valdavara 1. However, these northern sites are rock-shelters or open air sites that do not have radiometric dating. In addition, the ongoing excavations in Eirós Cave are bringing out an interesting Upper Paleolithic sequence (Fábregas *et al.*, 2010).

The most reliable counterparts of the Valdavara 1 Pleistocene levels must be found in the Magdalenian of the Western Cantabrian region, where many sites have yielded similar radiocarbon dates and these chrono-cultural stages are particularly well represented. As we said above, the Navia River is a natural corridor between the Cantabrian region and the interior areas of Galicia. From this point of

view, a relationship between Valdavara and the Cantabrian Magdalenian would be likely. The Cantabrian assemblages with radiocarbon dates similar to those from Valdavara correspond to the end of the Lower Magdalenian and the beginning of the Middle Magdalenian (Corchón, 2005; González Sainz and Utrilla, 2005). There are several assemblages from Central and Eastern Asturias (especially in the Nalón and Sella basins) that have been dated to this time span: the Lower Magdalenian (levels XII and XI, respectively dated to $14,495 \pm 140$ and $13,755 \pm 120$ BP) and Middle Magdalenian (levels IXc-IV, dated between $13,650 \pm 140$ and $12,869 \pm 160$ BP) of Las Caldas Cave (Corchón, 1999); level 3c of La Güelga Cave, assigned to the Lower Magdalenian and dated between $14,170 \pm 1,030/-910$ and $14,020 \pm 130$ BP (Menéndez *et al.*, 2005); level B of Entrefoces, which is also Lower Magdalenian and has been dated to $14,690 \pm 200$ BP (González Morales, 1990); the Middle Magdalenian of La Paloma level 6 ($14,600 \pm 160$ BP); and, finally, levels 1a and 1c of Tito Bustillo Cave, which have also yielded some dates in the range of the Valdavara dating (level 1a: $14,250 \pm 300$ and $14,220 \pm 180$; level 1c: $13,870 \pm 220$ and $13,520 \pm 220$ BP), although some characteristics of the archaeological assemblage seem to be at odds with these dates (González Sainz, 1989; Moure, 1975).

Finally, research on Valdavara 3 is in a very preliminary stage, but it seems that this site marks the oldest archaeological evidence so far recovered in the Becerreá area. Although its chronology is still unclear, the preliminary data indicates that it is considerably older than Valdavara Cave. This kind of sites characterized by large faunal assemblages formed by natural agents, but showing ephemeral human visits, is relatively common in the Middle Pleistocene and Early Upper Pleistocene of the Iberian Peninsula. If the presumed age was confirmed, Valdavara 3 would represent a significant contribution to the research on the oldest human occupations of Galicia.

Acknowledgments

The archaeological excavations in Valdavara Cave and Valdavara 3 are carried out thanks to the financial support of the Concello de Becerreá (Becerreá council). Excavations in Valdavara 3 are also supported by the Consellería de Cultura e Turismo de la Xunta de Galicia. We are also grateful to Alberto López Pérez, the owner of the land where Valdavara Cave is located, and Canteira do Penedo S.A. (CANPESA), owner of the quarry where Valdavara 3 was found. CANPESA has also given material and logistical support to the Valdavara 3 excavations. These excavations are carried out in the framework of the research project *Ocupaciones humanas durante el Pleistoceno en la cuenca media del Miño* (HUM/2007-63662 HAR2010-21786/HIST). Finally, we are very grateful to all the excavators that took part in the archaeological works at these sites.

References

- Araújo, A.C.; Almeida, F. and Valente, M.J., 2009. Macrolithic industries of the Portuguese Mesolithic: a human adaptive response. In S. McCartan, R. Schulting, G. Warren and P. Woodman (eds.), *Mesolithic Horizons. Papers presented at the Seventh International Conference on the Mesolithic in Europe, Belfast 2005*, 779-787. Oxford, Oxbow Books.
- Blain, H.-A.; López-García, J. M.; Cuenca-Bescós, G.; Alonso, C.; Vaquero, M. and Alonso, S. 2009. Première mise en évidence fossile du chioglosse portugais *Chioglossa lusitanica* (Amphibia, Caudata) et son implication pour l'histoire biogéographique de l'espèce. *C. R. Palevol* 8: 693-703.
- Bueno Ramírez, P.; Barroso, B. and Balbín Behrmann, R. 2005. Ritual campaniforme, ritual colectivo: la necrópolis de cuevas artificiales del valle de las Higueras, Huecas, Toledo. *Trabajos de Prehistoria* 62: 67-90.
- Cáceres, I.; Lozano, M. and Saladié, P. 2007. Evidence for bronze age cannibalism in El Mirador Cave (Sierra de Atapuerca, Burgos, Spain). *American Journal of Physical Anthropology* 133: 899-917.
- Cámara Serrano, J. A. 2001. *El Ritual funerario en la prehistoria reciente en el sur de la Península Ibérica*. BAR international series, 913. Oxford. Oxford University Press.
- Corchón, M^a S. 1999. Solutrense y Magdaleniense del oeste de la cornisa cantábrica: dataciones 14C (calibradas) y marco cronológico. *Zephyrus* 52: 3-32.
- Corchón, M^a S. 2005. El Magdaleniense en la Cornisa Cantábrica: nuevas investigaciones y debates actuales. In N. F. Bicho (ed.), *O Paleolítico. Actas do IV Congresso de Arqueologia Peninsular*, 15-38. Faro, Universidade do Algarve.
- Fábregas Valcarce, R.; Rodríguez Rellán, C.; Gómez Fernández, A. and Vilaseco Vázquez, X. I. 2005. *Prospección arqueolóxica intensiva do fenómeno megalítico na Comarca do Deza. Memoria Interpretativa*. Santiago de Compostela. Servicio de Arqueoloxía da Xunta de Galicia.
- Fábregas Valcarce, R.; Lazuén, T.; de Lombera, A.; Peña, J. A.; Pérez Alberti, A.; Rodríguez, X. P.; Rodríguez Rellán, C. and Terradillos, M. 2007. Novos achados paleolíticos no interior de Galicia. A depresión de Monforte de Lemos e as súas industrias líticas. *Gallaecia* 26: 7-30.
- Fábregas Valcarce, R.; Alonso Fernández, S.; Lazuén, T.; de Lombera Hermida, A.; Pérez Alberti, A.; Rodríguez Álvarez, X. P.; Rodríguez Rellán, C.; Terradillos, M.; Serna, M. R. and Vaquero, M. 2008. Aportacións ó estudo da Prehistoria da cunca media do Miño. Os asentamentos en cova e ó aire libre. *Gallaecia* 27: 63-88.
- Fábregas, R.; Alonso Fernández, S.; Ameijenda, A.; Grandal d'Anglade, A.; Lazuén, T.; de Lombera, A.; Pérez Alberti, A.; Pérez Rama, M.; Rodríguez Álvarez, X.P.; Serna, M.R. and Vaquero, M. 2010. Completando o mapa. Novas datacións absolutas para o Paleolítico e Mesolítico do interior galego. *Gallaecia*, 29: 5-28.

- Fernández Rodríguez, C. 1993. Los macromamíferos del Pleistoceno y Holoceno inicial en el Noreste peninsular. En A. Pérez Alberti, L. Guitián and P. Ramil Rego (eds), *La evolución del paisaje en las Montañas del entorno de los Caminos Jacobeos*, 183-191. Santiago de Compostela, Xunta de Galicia.
- Fernández Rodríguez, C. and Villar Quinteiro, R. 2003. Prospección y excavación de cuevas en la cuenca del Sil (Rubiá, Ourense): La Pala da Vella. *Brigantium* 14: 13-22.
- González Morales, M. 1990. El abrigo de Entrefoces (1980-1983). *Excavaciones arqueológicas en Asturias 1983-86*: 29-36.
- González Sainz, C. 1989. *El Magdaleniense Superior-Final de la región cantábrica*. Santander. Universidad de Cantabria.
- González Sainz, C. and Utrilla, P. 2005. Problemas actuales en la organización y datación del Magdaleniense de la Región Cantábrica. In N. F. Bicho (ed.): *O Paleolítico. Actas do IV Congresso de Arqueologia Peninsular*, 39-47. Faro, Universidade do Algarve.
- Grandal, A. 1991. Revisión de los fondos paleontológicos del Museo Provincial de Lugo: nuevos datos sobre fauna cuaternaria de Galicia. *Cuadernos do Laboratorio Xeolóxico de Laxe* 16: 23-35.
- López Cordeiro, M^a M. 2003. El yacimiento epipaleolítico de Chan da Cruz (Valadouro, Lugo): Síntesis de los primeros resultados. *Complutum* 14: 39-54.
- López García, J.M.; Blain, H.-A.; Cuenca-Bescós, G.; Vaquero, M.; Alonso, S. and Alonso, C. 2008. Primeros datos sobre los microvertebrados (Amphibia, Squamata y Mammalia) del Pleistoceno Superior final-Holoceno de la Cueva de Valdavara-1 (Becerreá, Lugo). In J.I. Ruiz-Omeñaca, L. Piñuela and J.C. García-Ramos (eds.), *Libro de resúmenes. XXIV Jornadas de la Sociedad Española de Paleontología. Museo del Jurásico de Asturias (MUJA), Colunga, 15-18 de octubre de 2008*, 142-143.
- Menéndez Fernández, M.; García Sánchez, E. and Quesada, J. M. 2005. Magdaleniense inferior y territorialidad en la Cueva de La Güelga (Asturias). In N. F. Bicho (ed.), *O Paleolítico. Actas do IV Congresso de Arqueologia Peninsular (Faro, 14 a 19 de Setembro de 2004)*, 63-75. Faro, Universidade do Algarve.
- Monteiro-Rodrigues, S. and Angelucci, D. 2004. New data on the stratigraphy and chronology of the prehistoric site of Prazo (Freixo de Numão). *Revista Portuguesa de Arqueologia* 7(1): 39-60.
- Moure, J. A. 1975. Cronología de las industrias tardiglaciares en el Norte de España. *Trabajos de Prehistoria* 32: 21-34.
- Ramil, E. 1997. La transición del Paleolítico Superior al Neolítico en las sierras septentrionales de Galicia. Una aproximación preliminar. In R. de Balbín and P. Bueno (eds), *II Congreso de Arqueología Peninsular: Tomo I.- Paleolítico y Epipaleolítico*, 273-285. Zamora, Fundación Rei Afonso Henriques.
- Ramil Soneira, J. and Vázquez Varela, J.M. 1983. Primer hallazgo de arte mueble paleolítico en Galicia. *Ars Praehistorica* 2: 191-193.
- Vaquero Rodríguez, M.; Alonso Fernández, S.; Alonso Fernández, C.; Ameijenda Iglesias, A.; Blain, Hugues-Alexandre; Fábregas Valcarce, R.; Gómez Merino, G.; de Lombera Hermida, A.; López-García, J.M.; Lorenzo Merino, C.; Lozano Ruiz, M.; Rodríguez Rellán, C.; Rosell i Ardèvol, J. and Serna González, M.R. 2009. Nuevas fechas radiométricas para la Prehistoria del noroeste de la Península Ibérica: la cueva de Valdavara (Becerreá, Lugo). *Trabajos de Prehistoria* 66(1): 99-113.
- Vera, J. A. (ed.). 2004. *Geología de España*. Madrid. Instituto Geológico y Minero de España/Sociedad Geológica de España.
- Villar Quinteiro, R. 1997. El Paleolítico Superior y Epipaleolítico en Galicia. *Zephyrus* 50: 71-106.
- Weninger, B. and Jöris, O. 2004. Glacial Radiocarbon Calibration. The CalPal Program. In T. Higham, C. B. Ramsey and C. Owen (eds.), *Radiocarbon and Archaeology. Fourth International Symposium*. Oxford, 2002.